

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) The process as claimed in claim 18, which comprises coating the colloidal iridium oxide onto a surface by a coating process comprising the following steps:

- a) applying the colloidal iridium oxide to said surface to yield a coated surface,
 - b) drying the coated surface, and
 - c) firing the coated surface at a temperature of from 300 to 1000°C,
- steps a to c optionally being repeated until a desired coating layer thickness has been obtained.

2. (Canceled)

3. (Previously Presented) The process as claimed in claim 18, wherein the Brønsted base comprises an alkali metal hydroxide.

4. (Previously Presented) The process as claimed in claim 3, wherein an aqueous solution of the Ir salt is used, and the aqueous solution of the Ir salt is adjusted to a pH of > 12.

5. (Previously Presented) The process as claimed in claim 18, wherein the Ir salt is selected from the group consisting of halides, nitrates, sulfates, acetates, acetylacetonates, the hydrates thereof and the mixed salts thereof with other metal salts.

6. (Previously Presented) The process as claimed in claim 1, wherein the surface to be coated is selected from the group consisting of metal and metal oxide surfaces.

7. (Previously Presented) The process as claimed in claim 6, wherein the surface to be coated is the surface of a Ti electrode.

8. (Previously Presented) The process as claimed in claim 18, wherein the colloidal iridium oxide produced has a particle size of ≤ 10 nm.

9. (Canceled)

10. (Previously Presented) The process as claimed in claim 3, wherein the alkali metal hydroxide is selected from the group consisting of NaOH and KOH.

11. (Previously Presented) The process as claimed in claim 4, wherein the aqueous solution of the Ir salt is adjusted to a pH of > 13 .

12. (Previously Presented) The process as claimed in claim 5, wherein the Ir salt is selected from the group consisting of alkali metal-iridium salts.

13. (Currently Amended) The process as claimed in claim ~~12~~¹²⁵, wherein the Ir salt is selected from the group consisting of $\text{IrCl}_3 \cdot \text{H}_2\text{O}$, $\text{IrCl}_4 \cdot \text{H}_2\text{O}$, $\text{H}_2\text{IrCl}_6 \cdot \text{H}_2\text{O}$, $\text{Na}_2\text{IrCl}_6 \cdot \text{H}_2\text{O}$, and $\text{K}_2\text{IrCl}_6 \cdot \text{H}_2\text{O}$.

14. (Previously Presented) The process as claimed in claim 6, wherein the surface is selected from the group consisting of Ti, TiO_2 , ZnO, SnO_2 and glass.

15. (Previously Presented) The process as claimed in claim 7, wherein the Ti electrode is a Ti electrode for the evolution of oxygen and evolution of chlorine or an electrode for the oxidation of organic residues in drinking water.

16. (Previously Presented) The process as claimed in claim 8, wherein the colloidal iridium oxide produced has a particle size of ≤ 3 nm.

17. (Previously Presented) The process as claimed in claim 18, wherein the pH of the solution of the Ir salt is adjusted to a $\text{pH} \geq 13$.

18. (Previously Presented) A process comprising the following steps:

- a) preparing colloidal iridium oxide by a process comprising:
 - i) adjusting the pH to > 12 of an aqueous, alcoholic or aqueous-alcoholic solution of an Ir salt, optionally with stirring, and admixing with a Brønsted base to produce a mixture; and subsequently
 - ii) stirring the mixture resulting from i) at a temperature of from 0 to 100°C over a period of from 3 to 72 hours; and
- b) optionally coating the colloidal iridium oxide resulting from a) onto a surface.